

### **REMARKS/ARGUMENTS**

Favorable consideration of this application in light of the following discussion is respectfully requested.

Claims 12-20 are pending in the application.

In the outstanding Office Action, Claims 12, 13, and 15-17 were rejected under 35 U.S.C. § 112, second paragraph; Claims 12-14 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Salmela (U.S. Patent No. 5,805,996) in view of Kangas (U.S. Patent No. 5,504,937); Claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Salmela and Kangas in view of Keskitalo et al. (U.S. Patent No. 5,966,670, hereinafter Keskitalo); and Claims 13 and 15-17 were indicated as containing allowable subject matter.

Applicants gratefully acknowledge the indication of the allowable subject matter.

Applicants acknowledge with appreciation the personal interview between the Examiner, the Examiner's supervisor and Applicants' representative on July 1, 2004. During the interview, the Examiners acknowledged that both Salmela and Kangas fail to disclose or suggest rotating sectors within a single cell as shown in Applicants' Figures 1-2. The Examiners also acknowledged that Claim 12 is definite.

Briefly recapitulating, Claim 12 is directed to a method of distributing communications established by radio-communication terminals, within a geographic cell of a radio-communication network, where the geographic cell is sub-divided into at least two geographic sectors. The improvement comprises rotating an orientation of at least one of the at least two geographic sectors if a) a total transmission rate of one of the at least two geographic sectors is greater than a predetermined total transmission rate, or b) a number of links established in one of the at least two geographic sectors is greater than a predetermined

number of links. With Applicants' invention, loads may be more effectively shifted and shared in a mobile network.

Salmela discloses a network of base stations with non-rotating antennas. The network also includes at least one base station with a rotating antenna having a single beam sector. The rotatable single beam sector is rotated to cover a sector of one of the non-rotating antennas.<sup>1</sup> The beams may be shifted as per a schedule<sup>2</sup> or in response to a predetermined load condition.<sup>3</sup> However, as acknowledged during the interview, Salmela does not disclose or suggest rotating an orientation of at least one of at least two geographic sectors as claimed in Applicants' Claim 12. In Salmela there is no re-balancing among sectors of an individual base station. Instead, a rotating, spare base station is used to off-load traffic from a non-rotating base station.

Kangas discloses a system and method for load sharing among adjacent base stations, where when one base station (BS 4) is overloaded, beams from neighboring base stations BS 1-3) are rotated to cover a part of the overloaded cell.<sup>4</sup> However, as acknowledged in the personal interview of July 1, 2004, Kangas does not disclose or suggest dividing a cell into sectors and rotating sectors within the cell in response to an overload condition within the same cell. That is, like Salmela, Kangas discloses *inter-cell* load balancing whereas the present invention is directed to *intra-cell* load balancing.

Applicants have also considered the Keskitalo reference and submit this reference does not cure the deficiencies of Salmela and Kangas. As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claim 12,

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<sup>1</sup> Salmela, Figure 1.

<sup>2</sup> Salmela, column 4, lines 16-27.

<sup>3</sup> Salmela, column 4, lines 28-31.

<sup>4</sup> Kangas, Figure 1.

Applicants submit the inventions defined by Claim 12, and all claims depending therefrom, are not rendered obvious by the asserted prior art for at least the reasons stated above.<sup>5</sup>

Regarding the rejection under 35 U.S.C. § 112, second paragraph, Applicants' traverse. As discussed during the interview, the sectors of the cell may be rotated via various methods of antenna steering (e.g., as recited in Claim 13) or via various signal processing methods known to one skilled in the art.

Accordingly, in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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<sup>5</sup> MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."